MOTOROLA Service Manual

AUTO RADIO

MODEL
6TAS8

GENERAL INFORMATION

TYPE - Universal automotive search tuned type superheterodyne receiver with transistor output and 8 miniature tubes. Plate power is furnished directly by the car's storage battery. This radio is designed for custom in-dash installation by using one of the following installation kits:

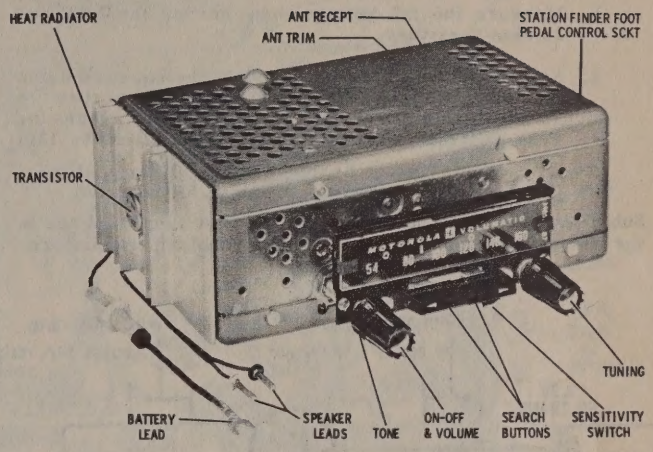
KBKS6 - 1956 Buick
KBKS5 - 1955 and 1954 Buick
KCTS6 - 1956 and 1955 Chevrolet
KOES6 - 1956 Oldsmobile
KOES5 - 1955 and 1954 Oldsmobile
KPCS6 - 1956 and 1955 Pontiac
KSRS6 - 1956 Studebaker-all models except Hawk
KSRS6H - 1956 Studebaker-Hawk only

TUNING RANGE - 540 to 1600 Kc IF - 262.5 Kc

OPERATES FROM - 12 volt storage battery

RATING - 2.7 amps at 14 volts DC

POWER OUTPUT - 2.5 watts undistorted; 4 watts maximum.



TUBE COMPLEMENT - 12AC6 RF amp; 12AD6 conv; 12AC6 1st IF amp; 12AC6 2nd IF amp; 12CR6 Det-AVC-AF amp; 12K5 driver; 12K5 relay; 12AE6 trigger; 2NJ4 or 2N176 or 2N178 transistor power amp.

OPERATING INSTRUCTIONS

MANUAL TUNING - The radio may be manually tuned to any desired station within the broadcast band by turning the right-hand knob. The dial pointer will indicate the frequency of the radio station to which the radio is tuned.

STATION FINDER SEARCH TUNING - If either search-bar is momentarily depressed the radio will automatically tune to the next radio station on the dial. The arrow on the actuated search-bar indicates the direction the pointer will travel. To tune the radio to the next station either to the left or right of its present position, actuate the corresponding search-bar. If no station is found before the pointer reaches the end of the dial scale, it will automatically reverse its direction of travel and search stations towards the opposite end of the dial scale until a station is found.

The number of stations to which the radio will search tune is determined by the position of the search sensitivity control (see SEARCH SENSITIVITY CONTROL).

Model FSC1 Station Finder Foot Pedal Control, which is available through Motorola Distributors as an accessory for the radio, may also be used for search tuning the radio.

For proper operation of radio, antenna trimmer must be properly adjusted and antenna fully extended.

SEARCH SENSITIVITY CONTROL - When search tuning, with the search sensitivity control in its left position, the radio will tune to strong powered stations; in its mid-position the radio will tune to strong and medium powered stations; in its right position the radio will tune to all stations within its tuning range.

SERVICE NOTES

1. RADIO POLARITY - When servicing this radio on the service bench, be sure that the radio housing is connected to the negative side of the power source, and that the "A" lead connects to the positive side. If connected otherwise, the radio will not operate and damage to the components will result.

2. TRANSISTOR REPLACEMENT - When replacing a transistor, be sure that the transistor contacts are connected as follows: the lead from the driver transformer T3 to the base terminal; the lead from the output transformer T4 to the emitter terminal; the collector is automatically grounded when the transistor is mounted to the heat radiator. The schematic diagram shows the position of the transistor electrodes as viewed from the terminal side. Care should be taken when mounting the transistor to the heat radiator; if not securely mounted, the transistor may be damaged from lack of proper heat dissipation. NOTE: When a transistor is replaced, the emitter current should be checked. (See EMITTER CURRENT ADJUSTMENT). Replace with transistor type 2N176.

3. EMITTER CURRENT ADJUSTMENT - To adjust the emitter current, insert a milliammeter in series with the emitter electrode. This can be done by unplugging the emitter lead and connecting the positive side of the milliammeter to this lead, and the negative side to transistor emitter terminal. Adjust the variable 500 ohm resistor R-25 for 480 ma current.

4. TRANSISTOR CHECK - The transistor used in this radio can be expected to give unusually long trouble free life, however, transistor checks may be made as follows: A rough check of transistor condition can be made with an ohmmeter. This check, primarily measures the ability of the transistor to conduct current in one direction, and to resist current flow in the opposite direction. The resistance in the conduction direction is very low in relation to the resistance in the non-conduction direction. This check is made by connecting the ohmmeter heads as shown in illustration.

A closer check of the transistor condition can be made by

MOTOROLA INC. 4545 WEST AUGUSTA BLVD. · CHICAGO 51, ILLINOIS

Part No. 68P538555 Price 10 Cents Printed in U.S.A.

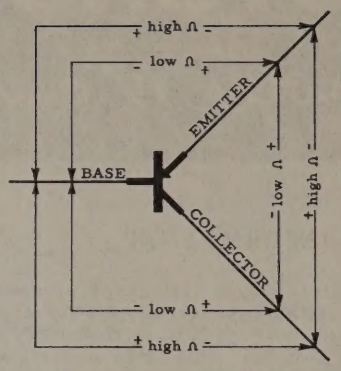
constructing the circuit shown from standard parts. Mount the transistor on a heat radiator made of a 1/8 inch thick piece of copper or aluminum, with a minimum area of 40 square inches. (See detail of heat radiator in illustration). Transistor must be securely mounted to the heat radiator; connect transistor into the circuit shown in illustration by using clips - DO NOT SOLDER TO TRANSISTOR. The condition of the transistor is determined by its gain. The gain should be over 20. To check the gain, proceed as follows:

1. Measure the DC voltage drop across the 1.5K and 10 ohm resistors.

2. Substitute the values obtained into the equation below as follows: divide the DC voltage drop across the 10 ohm resistor by the DC voltage drop across the 1.5K resistor; multiply the results obtained by 110.

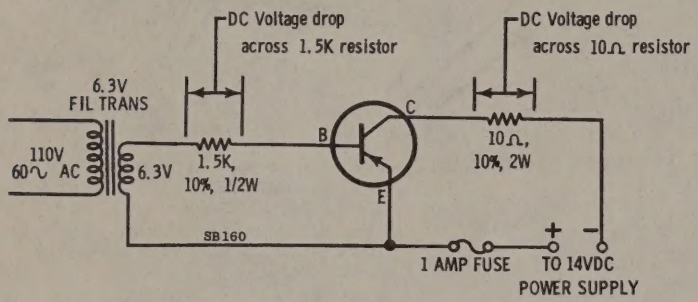
$$\text{GAIN} = \frac{\text{DC voltage drop across 10 ohm resistor}}{\text{DC voltage drop across 1.5K resistor}} 110$$

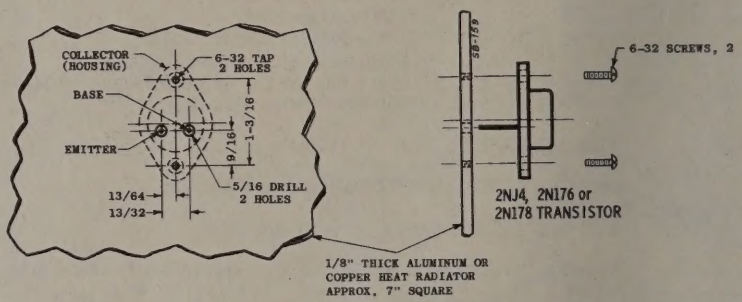
Substituting a known good transistor for a suspected one is the simplest and most positive way of checking transistors.



TRANSISTOR CONNECTIONS
(PIN VIEW)

TRANSISTOR RESISTANCE CHECK



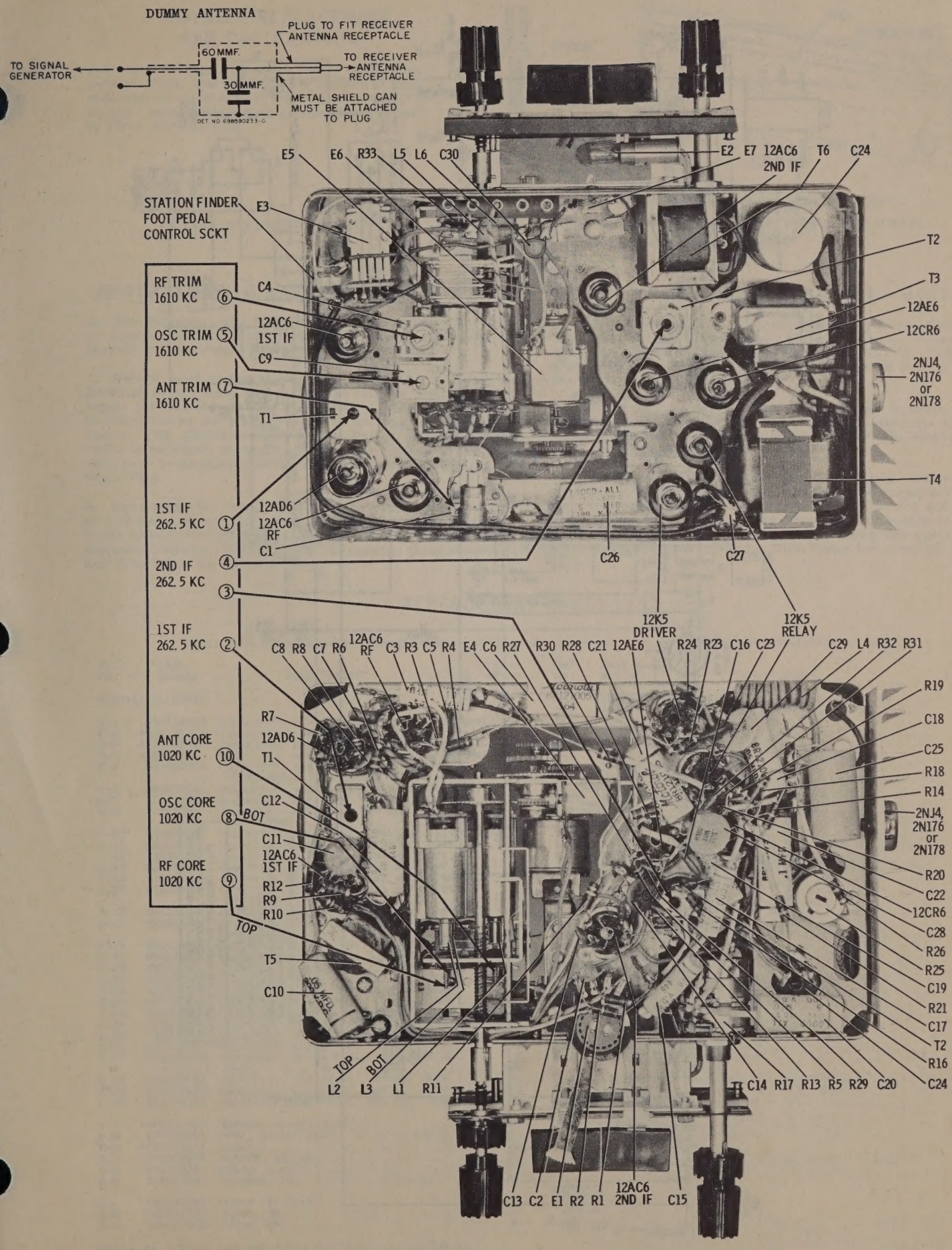


TRANSISTOR TEST CIRCUIT

ALIGNMENT

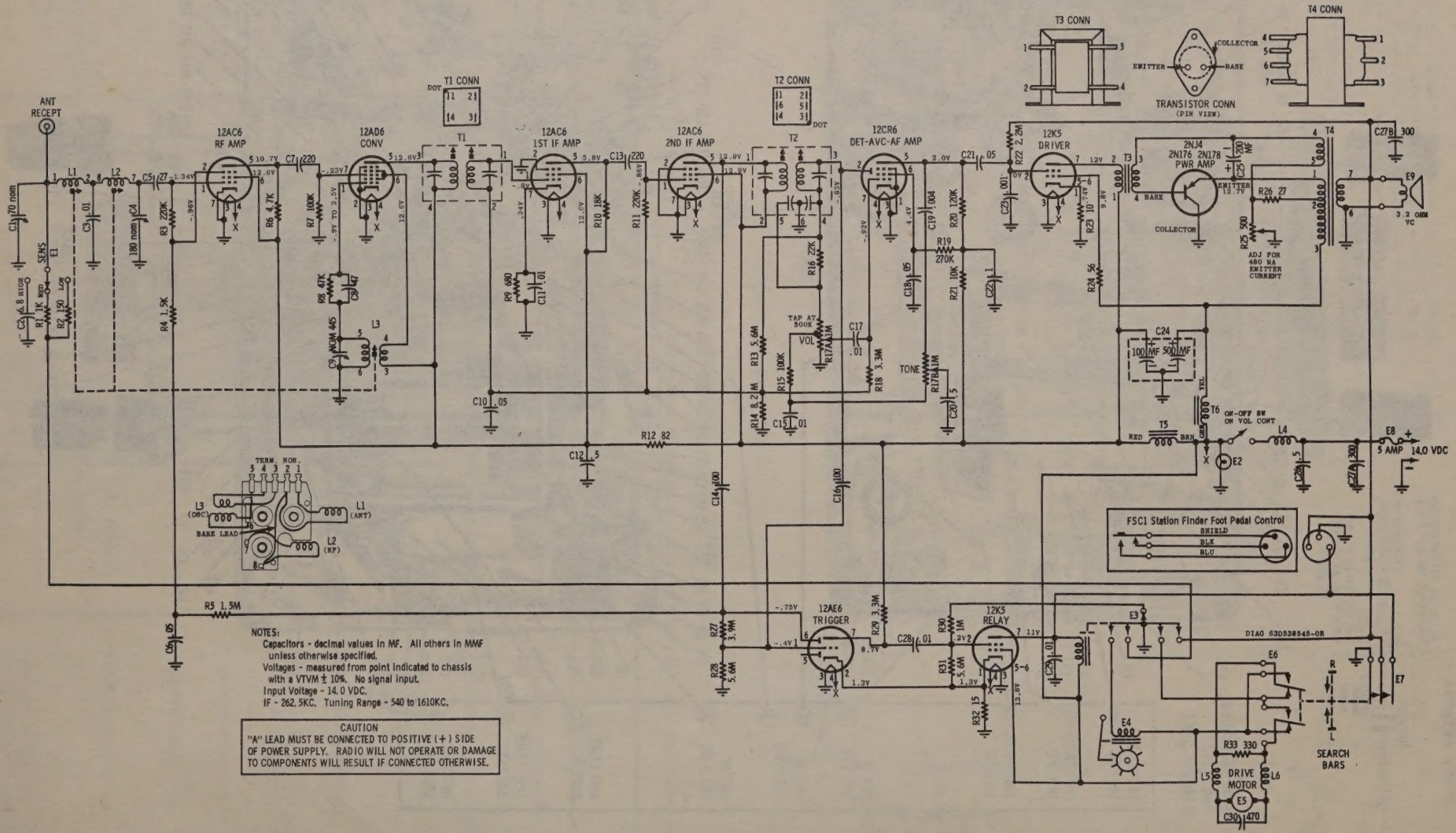
Connect an output meter across the speaker voice coil. Set volume to maximum, tone to full treble and sensitivity control to high(nearest tuning knob).

STEP	GENERATOR CONNECTION	GENERATOR FREQUENCY (400 cycle mod)	TUNER SET TO	ADJUST	REMARKS
IF ALIGNMENT					
1.	12AD6 grid (pin 7) thru .1 mf & chassis	262.5 Kc	Hi end stop	1, 2, & 3	Adjust for maximum.
NOTE: For step 2, connect a VTVM through a 100 megohm resistor to the plate (pin 7) of the 12AE6 and ground; increase generator output approximately 10 times.					
2.	12AD6 grid (pin 7) thru .1 mf & chassis	262.5 Kc	Hi end stop	4	Adjust for minimum VTVM reading.
RF ALIGNMENT (Remove VTVM)					
3.	Ant recept thru dummy (See Fig.)	1610 Kc	Hi end stop	5, 6, & 7	Adjust for maximum.
NOTE: Do not perform steps 4, 5, 6, & 7 unless the tuner has been tampered with, or components have been replaced. Before proceeding with step 4, back tuning cores out of coils as far as possible to eliminate their effect on trimmer adjustments. Remove dial scale assembly to expose core screws.					
4.	Ant recept thru dummy (See Fig.)	1610 Kc	Hi end stop	5, 6, & 7	Adjust for maximum.
5.	"	1020 Kc	Tuner carriage 9/16" from hi end stop	8, 9, & 10	Adjust for maximum.
6.	"	1610 Kc	Hi end stop	5, 6, & 7	Adjust for maximum.
7. Repeat steps 5 & 6 until no further increase; then cement tuning cores in place.					
ANTENNA TRIMMER					
8.	-	-	Weak station around 1400 Kc	7	With radio installed in car and antenna fully extended, adjust antenna trimmer for maximum.



ALIGNMENT ADJUSTMENTS AND PARTS LOCATION

MODEL 67AS8 SCHEMATIC DIAGRAM

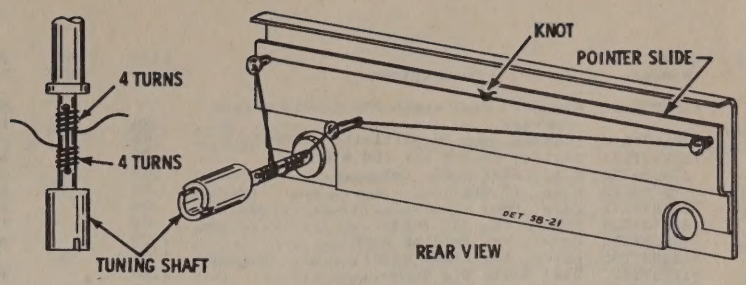


NOTES:
Capacitors - decimal values in MF. All others in MMF unless otherwise specified.
Voltages - measured from point indicated to chassis with a VTVM ± 10%. No signal input.
Input Voltage - 14.0 VDC.
IF - 262.5KC. Tuning Range - 540 to 1610KC.

CAUTION
"A" LEAD MUST BE CONNECTED TO POSITIVE (+) SIDE OF POWER SUPPLY. RADIO WILL NOT OPERATE OR DAMAGE TO COMPONENTS WILL RESULT IF CONNECTED OTHERWISE.

POINTER REPLACEMENT AND CALIBRATION

Set tuner to high end stop. Place pointer on pointer slide, and set center of pointer to coincide with the right edge of the "6" in the "160" Kc marker on dial scale. Crimp and cement pointer in place on dial cord.



DIAL CORD STRINGING DETAIL

1. Thread a sufficient length of dial cord through two holes in shaft.
2. Wind 4 turns from each hole toward center of shaft as shown in detail.
3. Thread over guides and tie knot as shown.

MOTOROLA AUTO RADIO WARRANTY SERVICE STATION PROCEDURE FOR BRANDED MODELS

1. The definition of a Motorola Branded Model is one that is branded with the Motorola name, and distributed to dealers through authorized Motorola Distributors.

2. Before performing a warranty repair on a Motorola Branded Auto Radio, you must first receive from the customer the Customer's Warranty Policy. This policy must be filled out by the selling dealer at the time of retail purchase. The Customer's Warranty Policy must show the radio to be within the ninety day warranty period if the repair is to be handled under the Motorola Auto Radio Warranty Plan.

3. The removal or reinstallation of the radio, the elimination of motor noise, tire static, electrical interference, or faulty installation and aerial repairs are not considered as warranty repairs. Consequently, charges for these services are to be borne by the customer.

4. Fill in the Motorola Auto Radio Warranty Labor Claim, Part No. 54P480884, and mail White and Green copies to the Motorola Distributor serving your area. The Yellow copy is to be retained by the Warranty Service Station for his files.

5. Defective parts for warranty repairs made on Motorola Branded Auto Radios are to be sent to your Motorola Distributor for free replacement, supported with the defective parts return form which you are now using.

6. Only those service shops authorized by their Motorola Distributor can perform repairs within the warranty period on a no-charge basis to the customer. If you are not already authorized as a Motorola Auto Radio Warranty Service Station, and you are interested in handling this service, please contact your Motorola Distributor for complete details.

REPLACEMENT PARTS LIST

NOTE: When ordering parts, specify model number of set in addition to part number and description of part.

Ref. No.	Part Number	Description	List Price
ELECTRICAL PARTS			
C-1	20A513232	Capacitor, mica trim: 20 mmf to 180 mmf	.40
C-2	*21R120546	Capacitor, cer tub: 6.8 mmf 500V	.25
C-3	*8K124119	Capacitor, paper tub: .01 mf 200V	.25
C-4	*20A77536	Capacitor, mica trim: 50 mmf to 280 mmf	.40
C-5	21R120567	Capacitor, cer tub: 27 mmf 500V NTC750PPM	.25
C-6	8R121005	Capacitor, paper tub: .05 mf 200V	.25
C-7	21R115854	Capacitor, cer tub: 220 mmf 500V	.25
C-8	21R115593	Capacitor, cer disc: 47 mmf 500V NTC750PPM	.25
C-9	20A485708	Capacitor, mica trim: 395 mmf to 470 mmf	.55
C-10	8R121005	Capacitor, paper tub: .05 mf 200V	.25
C-11	21R121946	Capacitor, cer disc: .01 mf 500V	.25
C-12	8K122076	Capacitor, paper tub: .5 mf 100V	.50
C-13	21R122420	Capacitor, cer disc: 220 mmf 500V	.25
C-14	21R400537	Capacitor, cer disc: 100 mmf 500V NTC750PPM	.25
C-15	8R121868	Capacitor, paper tub: .01 mf 200V	.25
C-16	21R400537	Capacitor, cer disc: 100 mmf 500V NTC750PPM	.25
C-17	8R121868	Capacitor, paper tub: .01 mf 200V	.25
C-18	8R121005	Capacitor, paper tub: .05 mf 200V	.25
C-19	8R121000	Capacitor, paper tub: .004 mf 600V	.35
C-20	8K122076	Capacitor, paper tub: .5 mf 100V	.50
C-21	8R121005	Capacitor, paper tub: .05 mf 200V	.25
C-22	8R121573	Capacitor, paper tub: .1 mf 200V	.25
C-23	21R410127	Capacitor, cer disc: .001 mf 500V	.25
C-24	23B536733	Capacitor, electrolytic: 500-100mf/16V	2.05
C-25	23A537548	Capacitor, electrolytic: 200 mf 3V	1.20
C-26	8K122076	Capacitor, paper tub: .5 mf 100V	.50
C-27	21A522033	Capacitor, metal mica: dual 300 mmf 300V	.25
C-28	21R121946	Capacitor, cer disc: .01 mf 500V	.25
C-29	21R121946	Capacitor, cer disc: .01 mf 500V	.25
C-30	21R410121	Capacitor, cer disc: 470 mmf 500V	.25
E-1	*40B537454	Switch, sensitivity	1.25
E-2	65T533821	Bulb, pilot light: 12 volt; #1891	.25
E-3	*80B537171	Relay	6.90
E-7	*40A537219	Switch, search	.55
E-8	65R122345	Fuse: 5 amp	.05
E-9	50K537864	Speaker, PM: 6 x 9"; 3.2 ohm VC	7.75**
*L-4	24K537544	Choke "A" lead	.10
*L-5	24K537545	Choke, RF	.20
L-6	24K537545	Choke, RF	.20
Resistors - Note: All resistors are insulated carbon type unless otherwise specified			
R-1	6R6229	1000 10% 1/2W	.10
R-2	6R6373	150 10% 1/2W	.10
R-3	6R6015	220,000 20% 1/2W	.10
R-4	6R6038	1500 10% 1/2W	.10
R-5	6R3966	1.5 meg 20% 1/2W	.10
R-6	6R6080	4700 10% 1/2W	.10
R-7	6R6075	100,000 20% 1/2W	.10
R-8	6R6048	47,000 10% 1/2W	.10
R-9	6R6040	680 10% 1/2W	.10
R-10	6R5591	18,000 10% 1/2W	.10
R-11	6R6407	220,000 10% 1/2W	.10
R-12	6R2035	82 10% 1/2W	.10
R-13	6R3988	5.6 meg 10% 1/2W	.10
R-14	6R5585	8.2 meg 10% 1/2W	.10
R-15	6R6075	100,000 20% 1/2W	.10
R-16	6R6397	22,000 10% 1/2W	.10
R-17	*18B537862	Dual Control & Switch: vol 1 meg, tap at 500K; tone 1 meg	2.20
R-18	6R2118	3.3 meg 20% 1/2W	.10
R-19	6R6414	270,000 10% 1/2W	.10
R-20	6R5631	120,000 10% 1/2W	.10
R-21	6R6054	10,000 20% 1/2W	.10
R-22	6R3927	2.2 meg 20% 1/2W	.10
R-23	6R5621	10 10% 1/2W	.10
R-24	6R5614	56 10% 1/2W	.10
R-25	18K537172	Control, bias: 500 10% 1W	.40
R-26	6R5683	27 10% 1/2W	.10
R-27	*6R490110	3.9 meg 10% 1/2W	.10
R-28	6R3988	5.6 meg 10% 1/2W	.10
R-29	6R6497	3.3 meg 10% 1/2W	.10
R-30	6R6046	1 meg 10% 1/2W	.10
R-31	6R3988	5.6 meg 10% 1/2W	.10
R-32	6R2034	15 10% 1/2W	.10
R-33	6R6010	330 20% 1/2W	.10
T-1	*24K537792	Trans, 1st IF: 262.5 Kc	1.30
T-2	24B533073	Trans, 2nd IF: 262.5 Kc	1.80
T-3	*25K537549	Trans, driver	2.20
T-4	*25K537550	Trans, output	3.00
T-5	*25B538791	Choke, filter	1.55
T-6	*25B537543	Choke, filter	1.45
	48C124246	Transistor, PNP junction: type 2N176 (replaces 2NJ4 and 2N178)	
MECHANICAL PARTS			
	*1V537629	Arm, search actuating: incls pushbutton (LH)	.40
	*1V537630	Arm, search actuating: incls pushbutton (RH)	.35
	*45A537238	Arm, switch (riveted to chassis)	.03

Ref. No.	Part Number	Description	List Price
	*1V537628	Bracket, dial assem mtg (incls return spring)	.20
	*43K537260	Bushing, mtg (sensitivity switch)	.05
	*38B537251	Button, search bar (LH & RH)	.20
	42A500196	Clip, dial scale ret	.02
	42B733793	Clip, IF mtg	.02
	42A634277	Clip, tube shield	.04
	29K534326	Connector, "A" lead	.03
	15D537180	Cover, bot (wiring side)	1.25
	*15D537185	Cover, top (tube side)	1.00
	*1V537632	Dial Scale Mtg Assem	1.15
	36K536570	Knob, control (tone)	.10
	36B536499	Knob, control (vol & tuning)	.30
	36B536569	Knob, dummy	.10
	*45K538873	Lug, adaptor (fits "A" lead conn)	.04
	2B521332	Nut, clinch (staked to chassis)	.01
	2S7051	Palnut: 3/8-32 (vol cont mtg)	.01
	1K532594	Pointer	.20
	*1V538874	Receptacle, fuse: incls connector and adaptor)	.85
	5K13896	Rivet, shoulder: long (dial cord guide)	.02
	5K12814	Rivet, shoulder: short (dial cord guide)	.01
	*5K537258	Rivet, shoulder (mounts switch arm to chassis)	.01
	*34B537987	Scale, dial	.20
	47B532599	Shaft, manual tuning extension	.55
	26A634276	Shield, tube	.05
	9A912113	Socket, ant	.20
	9K533458	Socket, pilot light	.20
	9A690170	Socket, 3 pin (foot pedal control)	.10
	9B535095	Socket, tube: 7 pin min	.15
	29A76280	Terminal, pin: blk (spkr leads)	.05
	29K76282	Terminal, pin: wht (spkr leads)	.03
	39A537234	Terminal, pin: (transistor conn)	.01
	4K24124	Washer, "C" (tuning shaft)	.01
	4K481689	Washer, felt (vol & tuning knobs)	.01
	*4K537256	Washer, spring (switch arm tension)	.02

TUNER 77K537920 (MST-181) PARTS

E-4	59A537563	Solenoid	.85
E-5	*59K537096	Motor, tuner drive	4.60
E-6	*40K537765	Switch, motor reversing	2.15
L-1	*24B537932	Coil, ant	1.70
L-2	24B537932	Coil, RF	1.70
L-3	*24B537931	Coil, osc	1.55
	*77D537920	Tuner, MST-181: complete	23.30
		exch	18.65
1	1V538965	Carrier Gear Assem	1.00
2	*1V537998	Coil & Plate Assem: incls L1, L2 & L3.	3.10
3	76B537638	Core, tuning	.20
4	*1V537594	Gear & Bushing Assem: tuning	.30
5	44K535344	Gear, drive	.10
6	5B534726	Grommet, coil mtg (osc)	.01
7	*5K536918	Grommet, coil mtg (RF & ant)	.03
8	5A533933	Grommet, core mtg	.05
9	2S7005	Nut, hex: 6-32 (solenoid mtg)	.01
10	2B533929	Nut, tension drive	.05
11	*31B537068	Plate, coil mtg	.20
12	42A535519	Ring, retaining (carrier gear)	.01
13	22K534525	Roll pin (manual tuning shaft)	.01
14	3S7471	Screw, sheet metal #6 x 1/4 (motor mtg)	.01
15	*1V537597	Shaft & Gear Assem(power take-off)	1.55
16	*47B537075	Shaft, manual tuning	1.10
17	47B535377	Shaft, drive	.20
18	*43A537641	Sleeve (osc)	.10
19	*43A537639	Sleeve (RF & ant)	.40
20	*1V537598	Slip Clutch & Gear Assem	.20
21	41A535392	Spring, armature (control clutch)	.15
22	41B536529	Spring, shaft ret	.01
23	41A535446	Spring, motor coupling	.10
24	4K535490	Washer (drive shaft)	.01
25	4B535380	Washer, retaining (carrier gear ret)	.01
26	39A533939	Wiper, tuner carriage grounding	.15

BUICK - 1956 (KBKS6 INSTALLATION KIT)

	7B538227	Bracket, rcvr mtg	.15
	7K538241	Bracket, spkr mtg: (LH)	.20
	7B538238	Bracket, spkr mtg: (RH)	.20
	8A4491	Condenser, noise suppression (gen and drop resistor)	.85
	*8B538244	Condenser, noise suppression (volt reg)	.95
	1V538376	Front Mounting Bracket: (LH)	.45
	1V538375	Front Mounting Bracket: (RH)	.45
	32B538234	Gasket, spkr	.45
	4S7688	Lockwasher, int-ext: 5/8 x 1/4	.01
	4S114693	Lockwasher, int-ext: 7/8 x 1/4	.02
	2S7022	Nut, hex: 1/4-20	.02
	2S2876	Nut, hex: 1/2-28 (mounts radio to dash)	.04
	1V538373	Plate, spkr mtg: incl gasket	2.70
	3S7295	Screw, cap: 1/4-20 x 3/4	.04
	3S8039	Screw, cap: 1/4-20 x 3/8	.05
	3S122085	Screw, ovenhead machine: 8-32 x 1/4; chrome plated	.02
	3S7454	Screw, sheet metal: #8 x 1/4	.01
	3S8188	Screw, sheet metal: #10 x 1/2	.01
	6A4141	Suppressor, distributor	.30
	*13K538232	Trimplate	1.90

BUICK - 1955 & 1954 (KBKS5 INSTALLATION KIT)

	*7K537848	Bracket, rcvr mtg	.20
	7K533690	Bracket, spkr plate mtg	.15
	42A730934	Clamp, mtg (ant)	.01
	8A4491	Condenser, noise suppression (gen and drop resistor)	.85
	8B538244	Condenser, noise suppression (volt reg)	.95
	1V533924	Front Mounting Bracket & Bushing Assem.	.50
	32K520099	Gasket, spkr	.60
	4S7688	Lockwasher, int-ext: 5/8 x 1/4	.01
	4S114693	Lockwasher, int-ext: 7/8 x 1/4	.02
	2S7022	Nut, hex: 1/4-20	.02
	2S2876	Nut, hex: 1/2-28 (rcvr mtg)	.04
	1V533922	Plate, spkr mtg: incls gasket	2.95
	3S7295	Screw, cap: 1/4-20 x 3/4 (mounts brkts to dash)	.04
	3S8039	Screw, cap: 1/4-20 x 3/8 (mounts brkts to rcvr)	.05
	3S122085	Screw, ovenhead machine: 8-32 x 1/4; chrome plated	.02
	3S488298	Screw, sheet metal: #8 x 1/4	.01
	3S8188	Screw, sheet metal: #10 x 1/2 (spkr mtg)	.01
	6A4141	Suppressor, distributor	.30
	*13K537846	Trimplate	2.80

CHEVROLET - 1956 & 1955 (KCTS6 INSTALLATION KIT)

	7B534309	Bracket, rcvr mtg	.20
	7B534215	Bracket, spkr plate mtg (bot)	.05
	7B534176	Bracket, spkr plate mtg (top)	.05
	8A4491	Condenser, noise suppression (ign coil & gen)	.85
	8B538244	Condenser, noise suppression (volt reg)	.95
	1V534243	Front Mounting Bracket: (LH)	.45
	1V534244	Front Mounting Bracket: (RH)	.45
	65R16248	Fuse: 9 amp	.05
	32D534214	Gasket, spkr	.85
	4S7688	Lockwasher, int-ext: 5/8 x 1/4	.01
	4S9751	Lockwasher, int-ext: #8	.01
	4S2620	Lockwasher, int-ext: #10	.01
	2S2883	Nut, hex: 10-32	.01
	2S2876	Nut, hex: 1/2-28 (rcvr mtg)	.04
	64C534094	Plate, spkr mtg	.90
	*3S122358	Screw, cap: 1/4-20 x 3/8 (mounts brkt to rcvr)	.03
	3S121856	Screw, cap: 1/4-20 x 1/2 (mounts brkt to tab)	.02
	*3S121297	Screw, machine: 8-32 x 5/16 (mounts condenser to ign coil)	.01
	3S400495	Screw, machine: 10-32 x 1/2 (mounts bot spkr brkt to dash)	.01
	3S122085	Screw, ovenhead machine: 8-32 x 1/4; chrome plated	.02
	3S488298	Screw, sheet metal: #8 x 1/4	.01
	3S8188	Screw, sheet metal: #10 x 1/2 (spkr mtg)	.01
	*13K537842	Trimplate	1.70
	4S122231	Washer, flat: 3/4-.515-.025	.01

OLDSMOBILE - 1956 (KOES6 INSTALLATION KIT)

	*7B538279	Bracket, rcvr mtg	.30
	7B538282	Bracket, spkr plate mtg (bot)	.25
	7B538311	Bracket, spkr plate mtg (top)	.10
	8A4491	Condenser, noise suppression (gen, volt reg, drop resistor)	.85
	1V538401	Front Mounting Bracket & Bushing Assem: (LH)	.40
	1V538402	Front Mounting Bracket & Bushing Assem: (RH)	.35
	32C538285	Gasket, spkr	.65
	4S7688	Lockwasher, int-ext: 5/8 x 1/4	.01
	4S9751	Lockwasher, int-ext: #8	.01
	2S7022	Nut, hex: 1/4-20	.02
	2S2882	Nut, hex: 1/2-28 (rcvr mtg)	.01
	1V538399	Plate, spkr mtg: incls gasket	2.35
	3S7297	Screw, cap: 1/4-20 x 1/2	.04
	3S8039	Screw, cap: 1/4-20 x 3/8	.05
	3S121297	Screw, machine: 8-32 x 5/16 (mounts condenser to ign coil)	.01
	3S122085	Screw, ovenhead machine: 8-32 x 1/4; chrome plated	.02
	3S7454	Screw, sheet metal: #8 x 1/4	.01
	3S8188	Screw, sheet metal: #10 x 1/2 (mounts spkr to spkr plate)	.01
	*13K538289	Trimplate	3.30
	4S122089	Washer, flat: 3/4-.515-.059	.02

OLDSMOBILE - 1955 & 1954 (KOES5 INSTALLATION KIT)

	*7B537865	Bracket, rcvr mtg	.15
	43A534084	Bushing, spkr mtg: 1-17/64" long	.40
	43K534087	Bushing, spkr mtg: 2-17/64" long	.50
	8A4491	Condenser, noise suppression (gen, volt reg, drop resistor)	.85
	1V534124	Front Mounting Bracket & Bushing Assem: (LH)	.70
	1V534125	Front Mounting Bracket & Bushing Assem: (RH)	.75
	32D534093	Gasket, spkr	.85
	4S9751	Lockwasher, int-ext: #8	.01
	4S7688	Lockwasher, int-ext: 5/8 x 1/4	.01
	2S2882	Nut, hex: 1/2-28 (rcvr mtg)	.01
	1V534122	Plate, spkr mtg: incls gasket	2.05
	3S7297	Screw, cap: 1/4-20 x 1/2 (mounts brkt to radio)	.04
	3S121297	Screw, machine: 8-32 x 5/16 (mounts condenser to ign coil)	.01
	3S122182	Screw, machine: 10-24 x 1/2 (spkr plate mtg)	.01
	3S7454	Screw, sheet metal: #8 x 1/4	.01
	3S124027	Screw, sheet metal: #10 x 1/2 (spkr mtg)	.05
	*3S120833	Screw, sheet metal: #10 X 1/2 (mounts brkt to dash)	.03

Ref. No.	Part Number	Description	List Price
	*13K537772	Trimplate	4.25
	4S122089	Washer, flat: 3/4-.515-.059	.02
PONTIAC - 1956 & 1955 (KPCS6 INSTALLATION KIT)			
	*7B537756	Bracket, rcvr mtg	.10
	8A4491	Condenser, noise suppression (gen, volt reg, drop resistor)	.85
	7K534823	Front Mounting Bracket: (LH)	.45
	7C534820	Front Mounting Bracket: (RH)	.45
	32C534818	Gasket, spkr	.85
	4S7688	Lockwasher, int-ext: 5/8 x 1/4	.01
	1V534852	Plate, spkr mtg: incls gasket	3.40
	*3S122358	Screw, cap: 1/4-20 x 3/8	.03
	3S121856	Screw, cap: 1/4-20 x 1/2 (mounts spkr plate to dash)	.02
	3S122085	Screw, ovenhead machine: 8-32 x 1/4; chrome plated	.02
	3S488298	Screw, sheet metal: #8 x 1/4	.01
	3S8188	Screw, sheet metal: #10 x 1/2	.01
	*13K537754	Trimplate	4.95
	4S7582	Washer, flat: 1/2-.195-.033	.01
STUDEBAKER - 1956 ALL MODELS EXCEPT HAWK (KSRS6 INSTALLATION KIT)			
	*7A538378	Bracket, rcvr mtg	.05
	7B538213	Bracket, spkr plate mtg	.35
	8A4491	Condenser, noise suppression (gen, volt reg, ign coil, drop resistor)	.85
	1V538425	Front Mounting Bracket & Bushing Assem.	.35
	32C538216	Gasket, spkr	.45
	4S7688	Lockwasher, int-ext: 5/8 x 1/4	.01
	2S2879	Nut, hex: 7/16-28 (mounts rcvr to dash)	.05
	1V538423	Plate, spkr mtg: incls gasket	2.85
	3S7297	Screw, cap: 1/4-20 x 1/2 (mounts rcvr mtg brkt to radio)	.04
	3S122085	Screw, ovenhead machine: 8-32 x 1/4; chrome plated	.02
	3S7454	Screw, sheet metal: #8 x 1/4	.01
	3S8188	Screw, sheet metal: #10 x 1/2	.01
	*13K538209	Trimplate	2.75
	4S7582	Washer, flat: 1/2-.195-.033	.01
STUDEBAKER - HAWK (KSRS6H INSTALLATION KIT)			
	7B538295	Bracket, spkr mtg	.10
	8A4491	Condenser, noise suppression (gen, volt reg, ign coil, drop resistor)	.85
	1V538431	Front Mounting Bracket & Bushing Assem.	.30
	4S7657	Lockwasher, ext: #8	.01
	4S7688	Lockwasher, int-ext: 5/8 x 1/4	.01
	2S114365	Nut, hex: 7/16-28 (mounts brkts & bushings to dash)	.04
	2S1375	Nut, hex: 8-32 (spkr mtg)	.01
	1V538429	Plate, spkr mtg	2.75
	3S8039	Screw, cap: 1/4-20 x 3/8	.05
	3S122085	Screw, ovenhead machine: 8-32 x 1/4; chrome plated	.02
	3S7454	Screw, sheet metal: #8 x 1/4	.01
	3S7544	Screw, sheet metal: #8 x 1/2	.01
	*13K538309	Trimplate	2.45
	4S7562	Washer, flat: 7/16-.187-.033	.01

PRICES SUBJECT TO CHANGE WITHOUT NOTICE
*New Item, Appears in any List for First Time
**Plus Federal Excise Tax at Current Rate